

(b) a polypeptide which is encoded by a nucleic acid sequence which hybridizes under medium stringency conditions with (i) the nucleic acid sequence of nucleotides 46 to 1488 of SEQ ID NO:1, or (ii) its full complementary strand, wherein medium stringency conditions are defined as prehybridization and hybridization at 42°C in 5X SSPE, 0.3% SDS, 200 µg/ml sheared and denatured salmon sperm DNA, and 35% formamide; and

(c) a fragment of (a) or (b), wherein the fragment has aminopeptidase activity;
wherein the polypeptide having aminopeptidase activity sequentially removes one amino acid residue at a time from the N-terminus of a peptide, polypeptide, or protein.

208. The polypeptide of claim 207, comprising an amino acid sequence which has at least 90% identity with the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

209. The polypeptide of claim 208, comprising an amino acid sequence which has at least 95% identity with the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

210. The polypeptide of claim 209, comprising an amino acid sequence which has at least 97% identity with the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

211. The polypeptide of claim 207, comprising the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2 or a fragment of contiguous amino acids of amino acids 16 to 496 of SEQ ID NO:2 wherein the fragment has aminopeptidase activity.

212. The polypeptide of claim 208, which is obtained from an *Aspergillus* strain.

213. The polypeptide of claim 212, which is obtained from an *Aspergillus oryzae* strain.

214. The polypeptide of claim 207, which is encoded by a nucleic acid sequence which hybridizes under medium stringency conditions with the nucleic acid sequence of nucleotides 46 to 1488 of SEQ ID NO:1 or its full complementary strand, wherein medium stringency conditions are defined as prehybridization and hybridization at 42°C in 5X SSPE, 0.3% SDS, 200 µg/ml sheared and denatured salmon sperm DNA, and 35% formamide.

215. The polypeptide of claim 214, which is obtained from an *Aspergillus* strain.

216. The polypeptide of claim 215, which is obtained from an *Aspergillus oryzae* strain.

217. The polypeptide of claim 207, which is encoded by a nucleic acid sequence which hybridizes under high stringency conditions with the nucleic acid sequence of nucleotides 46 to 1488 of SEQ ID NO:1 or its full complementary strand, wherein high stringency conditions are defined as prehybridization and hybridization at 42°C in 5X SSPE, 0.3% SDS, 200 µg/ml sheared and denatured salmon sperm DNA, and 50% formamide.

218. The polypeptide of claim 217, which is obtained from an *Aspergillus* strain.

219. The polypeptide of claim 218, which is obtained from an *Aspergillus oryzae* strain.

220. The polypeptide of claim 207, which is encoded by the nucleic acid sequence contained in plasmid pEJG18 which is contained in *E. coli* NRRL B-21677.

221. The polypeptide of claim 207, wherein the polypeptide hydrolyzes a substrate containing Ala, Glu, Gly, or Pro at its N-terminus.

222. A method for producing the secreted polypeptide of claim 207 comprising (a) cultivating a microbial strain, which in its wild-type form produces the polypeptide, in a medium under conditions suitable for production of the polypeptide; and (b) recovering the polypeptide from the medium.

223. A composition comprising the polypeptide of claim 207 and a suitable carrier.

224. The composition of claim 223, wherein the polypeptide comprises an amino acid sequence which has at least 90% identity with the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

225. The composition of claim 225, wherein the polypeptide comprises an amino acid sequence which has at least 95% identity with the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

226. The composition of claim 225, wherein the polypeptide comprises an amino acid sequence which has at least 97% identity with the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

227. The composition of claim 223, wherein the polypeptide comprises the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2 or a fragment of contiguous amino acids of amino acids 16 to 496 of SEQ ID NO:2 wherein the fragment has aminopeptidase activity.

228. The composition of claim 227, wherein the polypeptide is obtained from an *Aspergillus* strain.

- G*
Cont
- No Structure*
229. The composition of claim 228, wherein the polypeptide is obtained from an *Aspergillus oryzae* strain.
230. The composition of claim 223, wherein the polypeptide is encoded by a nucleic acid sequence which hybridizes under medium stringency conditions with the nucleic acid sequence of nucleotides 46 to 1488 of SEQ ID NO:1, or its full complementary strand, wherein medium stringency conditions are defined as prehybridization and hybridization at 42°C in 5X SSPE, 0.3% SDS, 200 µg/ml sheared and denatured salmon sperm DNA, and 35% formamide.
231. The composition of claim 230, wherein the polypeptide is obtained from an *Aspergillus* strain.
232. The composition of claim 231, wherein the polypeptide is obtained from an *Aspergillus oryzae* strain.
233. The composition of claim 223, wherein the polypeptide is encoded by a nucleic acid sequence which hybridizes under high stringency conditions with the nucleic acid sequence of nucleotides 46 to 1488 of SEQ ID NO:1, or its full complementary strand, wherein high stringency conditions are defined as prehybridization and hybridization at 42°C in 5X SSPE, 0.3% SDS, 200 µg/ml sheared and denatured salmon sperm DNA, and 50% formamide.
234. The composition of claim 233, wherein the polypeptide is obtained from an *Aspergillus* strain.
235. The composition of claim 234, wherein the polypeptide is obtained from an *Aspergillus oryzae* strain.
236. The composition of claim 223, wherein the polypeptide is encoded by the nucleic acid sequence contained in plasmid pEJG18 contained in *E. coli* NRRL B-21677.
237. A composition comprising a suitable carrier and a polypeptide having physicochemical properties of (a) a pH optimum in the range of from about pH 7.27 to about pH 10.95 determined at ambient temperature in the presence of Ala-para-nitroanilide; (b) a temperature stability of 90% or more, relative to initial activity, at pH 7.5 determined after incubation for 20 minutes at 60°C in the absence of substrate; (c) a temperature stability of 64% or more, relative to initial activity, at pH 7.5 determined after incubation for 20 minutes at 70°C in the absence of substrate; and (d) an ability to hydrolyze a substrate containing Ala, Arg, Asn, Asp, Cys, Gln, Glu, Gly, His, Ile, Leu, Lys, Phe, Pro, Ser, Thr, Trp, Tyr, or Val at its N-terminus.
238. The composition of claim 237, wherein the polypeptide hydrolyzes a substrate containing Ala, Glu, Gly, or Pro at its N-terminus.